Amendment to the Specification

Amend paragraph 0003 to read as follows:

[0003] The field of the present invention pertains to cushioning methods and devices for cushioning the human body or parts thereof, and more specifically, pertains to fine-grained "micro-support" cushioning methods that comply or respond to specific regions of the body.

Amend paragraph 0006 to read as follows:

[0006] Generally the above-mentioned manufacturers have attempted to realize the benefits of comfort or improved performance with a single plastic composite because a single composite generally reduces manufacturing costs. Typically, ~~of~~ an assembly of multiple parts was viewed as too costly and too time consuming. Recently, a new injection molding process of "overshooting," in which a mold is made of one plastic and then a second plastic is "overshot" onto the first plastic, has been developed and might permit the production of multiple layers although that process can still be too costly.

Amend paragraph 0009 to read as follows:

[0009] In response to this oversight of available designs or solutions, an aspect of the present invention is a micro-support platform with a plurality of independent shock absorbers. The present invention relates to a structure for providing support on a smaller scale as mentioned above so that a portion of the human body being supported is essentially provided with what approximates continuous support. In accordance with ~~the present invention~~ a preferred embodiment, a ~~device~~ system is comprised of (1) a cylinder, (2) a rod, and (3) a compression spring that when aligned side by side in groups can respond almost infinitely to varying loads across a given X Y dimension and thereby provide more continuous support to a portion of a human body.

Amend paragraph 0010 to read as follows:

[0010] This preferred system ~~can~~ may be used for mattresses, furniture, car seats, or indeed for any support system used by most anyone in almost any situation. One such application is for the inner sole of any shoe: dress, casual, sports, work, or medical.

Amend paragraph 0011 to read as follows:

[0011] Additional aspects and advantages ~~of this invention~~ will be apparent from the following detailed description of preferred embodiments, which proceeds with reference to the accompanying drawings.

Amend paragraph 0014 to read as follows:

[0014] Fig. 2 is an exploded side perspective view of a shoe inner sole incorporating an embodiment of the micro-support cushion system ~~of the present invention~~.

Amend paragraph 0019 to read as follows:

[0019] In accordance with ~~the present invention~~ a preferred embodiment ~~the present invention~~, by placing small "shock absorbers", such as the springs shown in Figs. 1A, 1B, and 4A-4C, at .250" intervals (that's 16 to a square inch) ~~forms~~ a tight responsive grid system is formed. As a foot supported by the inner sole shown in Figs. 2 and 3 plants and then rotates with momentum created by walking, the tight grid system absorbs the energy with almost continuous support throughout the stepping cycle.

Amend paragraph 0022 to read as follows:

[0022] An aspect of ~~the present embodiment~~ a preferred embodiment includes a design that can mimic the characteristics of a compression spring from a single thermoplastic, thus taking advantage of the cost benefits associated with injection molding. The design is shown as the layered spring structure of Figs. 1A and 1B.

Amend paragraph 0023 to read as follows:

[0023] With reference to Figs. 1A and 1B, the force needed to compress a smaller top layer of the layered spring structure is a function of the top layer's surface area multiplied by its deflection rate. Once the top layer is compressed, any additional force

acts to compress ~~the~~ a larger second layer. The compression rate of the second layer is greater than that of the first top layer to the degree that the second layer has a larger surface area than the top layer. The corresponding change in compression rate is experienced throughout each layer of the layered spring structure and is similar to the behavior exhibited by a compression spring even though the layered spring structure is formed from a single plastic.

Amend paragraph 0024 to read as follows:

[0024] Furthermore, more predictable changes in the deflection rate can be produced if instead of a flat surface compressing the layered spring, as shown in Fig. 4C , a layered compression structure as shown in Fig. 1A is used. The layered compression structure of Fig. 4C ~~Fig. 1A~~ is similar in dimension and shape to the layered spring structure shown in Fig. 1A, except that the height of each inverted layer of the layered compression structure is less than the height of a corresponding layer in the layered spring structure, or in other words the layered compression structured appears recessed relative to the layered spring structure. Accordingly as the layered compression structure is compressing the top layer of the layered spring structure the layered compression structure begins to compress the second layer of the layered spring structure before the first layer of the layered spring structure is fully compressed. This process continues for each layer of the layered spring structure until it is fully compressed. In this manner more predictable changes in the deflection rate can be engineered while at the same time using this device to add lateral support to each layer.

Amend paragraph 0029 to read as follows:

[0029] Once a production material has been selected a force/compression curve for the shoe inner sole can be calculated. The relevant human motions or activities that are typically involved are standing, walking, running, and other typical bipedal motor skills. The forces exerted by the above mentioned activities generally fall into clusters rather than a linear curve. The layered spring structure as described above is well suited to accommodate sudden and large increases in force such as might be expected when a user shifts between walking (which is on the order of 1.0 to 1.5 x body weight) and

running (which is on the order of 2.0 to 4.5 x body weight). An X/Y plot of the anticipated performance of the layered spring structure response will be stair-stepped; normally following the total square surface area being compressed (the compression properties of the material being a constant). Although an aspect of ~~the present invention was~~ certain preferred embodiments have been shown in the drawings as a cylindrical layered spring structure and a cylindrical layered compression structures drawing the invention is not limited to that structure. ~~A~~ For example, a design ~~can~~ may be formed using frustrum (the truncated base of a cone) shaped layered spring structures and frustrum shaped layered compression structures. A frustrum shaped design benefits from having a greater mass at its base, and the energy dissipation throughout this unreinforced plastic can help reduce flex-fatigue and can help perpetuate the resiliency under intermittent loads.